

# United States Patent and Trademark Office

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grand ax	92.28.2 (2)	Richard B. Philips	× 1.1×5	7.2
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Office Of Counsel, Bldg 112T Naval Undersea Warfare Center Division Newport			EN AMENER	
			TOOMER, CEPHIAD	
1176 Howell Street Newport, RT - 02841-1708			A211 Nb	ENTER NUMBER

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Please find below and or attached an Office communication concerning this application or proceeding.

# Application No.

Applicant(s)

Office Action Summary

10 090,987 Examiner

PHILIPS ET AL Art Unit

Cephia D. Toomer

1714

The MAILING DATE of this communication appeared Period for Reply	ars on the cover sheet with the correspondence address
A SHORTENED STATUTORY PERIOD FOR REPLY ITHE MAILING DATE OF THIS COMMUNICATION.  Extensions of time may be available under the provisions of \$7.0F8 it had after 8 + 8. MONTHS from the mailing date of this communication.  If the period for reply is specified above its essitian fruit, now days when your set of the period for reply is specified above the maximum statutor, period with Failure to reply within the safer rethinded one off for reply will by statute be 4rly reply the wead by the 3th certains from three minimum statutors after the mailing delegated by the dater them adjustment. See 37.0F8 1.7.4 to	all or not event inclueven may alrep able timely field.  This the statutory elisinous with its like it days will be considered timels, about and will event SIX 6 MOTATHS from the mailing date little scommon cation about the accident to become ABANDONED 135 U.S.O. § 133
Status	
1) Responsive to communication(s) filed on	
2a) This action is <b>FINAL</b> 2b) This	action is non-final.
3) Since this application is in condition for allowand closed in accordance with the practice under Exposition of Claims	ce except for formal matters, prosecution as to the merits is parte Quayle. 1935 C.D. 11, 453 O.G. 213.
4) Claim(s) 1-16 is/are pending in the application.	
4a) Of the above claim(s) is/are withdrawn	from consideration
5) Claim(s) is/are allowed.	Thom consideration.
6) Claim(s) <u>1.6,7 and 12-16</u> is/are rejected.	
7) Claim(s) 2-5 and 8-11 is/are objected to.	
8) Claim(s) are subject to restriction and/or e	election requirement.
Application Papers	•
9) The specification is objected to by the Examiner.	
10) The drawing(s) filed on is/are: a) accepte	d or b) objected to by the Examiner.
Applicant may not request that any objection to the c	frawing(s) be held in abeyance. See 37 CFR 1.85(a).
11) The proposed drawing correction filed on is	s: a) approved b) disapproved by the Examiner.
If approved, corrected drawings are required in reply	to this Office action.
12) The oath or declaration is objected to by the Exan	niner.
Priority under 35 U.S.C. §§ 119 and 120	
13) Acknowledgment is made of a claim for foreign p	riority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some c) None of:	
<ol> <li>Certified copies of the priority documents f</li> </ol>	nave been received.
2. Certified copies of the priority documents h	have been received in Application No
3. Copies of the certified copies of the priority application from the International Bure. * See the attached detailed Office action for a list of	· · · · · · · · · · · · · · · · · · ·
	priority under 35 U.S.C. § 119(e) (to a provisional application).
a) The translation of the foreign language provided in the following states are also as a claim for domestic translation.  15) Acknowledgment is made of a claim for domestic translation.	
Attachment(s)	
s [] Not the of References One (14.7) Heb s [] Notice of Draftsperson's Patent Drawing Review (PTO-94%)	4 [onterview Summary PT 0415 Paper Nos 5: Nutries to timmal Patent Application PTPs 152

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#### **DETAILED ACTION**

### Specification

1. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

## Claim Rejections - 35 USC § 103

- 2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 3. Claims 1, 6, 7, and 12-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Costa (US 6,464,148).

Costa teaches a snowmaking process wherein 2-50 ppm of a organopolysiloxane is present in water that is made into artificial snow (see abstract; col. 6, lines 43-65; col. 7, lines 20-23). Costa teaches that the siloxane/water mixture is fed continuously under high pressure to at least one orifice of a snow gun. The mixture is released into the atmosphere at a temperature below freezing whereby the mixture crystallizes to form snow. Costa teaches the limitations of the claims other than the differences that are discussed below.

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Costa fails to specifically teach aerating the mixture However, it would be reasonable to expect that aeration occurs when the mixture is sprayed or discharged from the snow gun.

Costa fails to teach that a pump is joined to the mixing means or that a fluid transfer line is joined to the pump. However, it would be reasonable to expect that these components would be part of a snow making system because the polymer/water mixture has to be transferred or pumped from the mixing means to the orifice or nozzle that discharges the mixture into the atmosphere. The limitations that refer to the compress air are disclosed in Costa as conventional means for a snow making system (see col. 1, lines 36-44).

4. Claims 2-5 and 8-11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The prior art fails to teach or suggest that the drag polymer is polyethylene oxide in a carrier solution.

The prior art made of record but not relied upon is cited for teaching the general state of the snow making art and is considered pertinent to Applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cephia D. Toomer whose telephone number is 703-308-2509. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor. Vasu Jagannathan can be reached on 703-306-2777. The fax phone numbers for the organization where this application or proceeding is assigned are 703-

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872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

Cephia D. Toomer Primary Examiner Art Unit 1714

10090987\2 June 17, 2003